



# UNITED STATES PATENT AND TRADEMARK OFFICE

46  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,466	10/31/2000	Dennis Joseph Denen	LLT-259-A	2542

7590 08/05/2002  
Thomas E Bejin  
Young & Basile P C  
3001 West Big Beaver Road Suite 624  
Troy, MI 48084

EXAMINER

LEYKIN, RITA

ART UNIT	PAPER NUMBER
----------	--------------

2837

DATE MAILED: 08/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/702,466

Applicant(s)

DENEN ET AL.

Examiner

Rita Leykin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-32, 34 and 35 is/are allowed.
- 6) ☒ Claim(s) 18-24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is in response to the communication, filed on July 10, 2002.

#### ***Response to Remarks***

References applied to the previous office action are considered to be pertinent to the submitted application. It is the applicant's responsibility to evaluate the applied references even though the examiner did not specifically emphasized the featured limitations.

In the submitted application, in the specification on page 5, lines 16-28 to observe the effect of realism, when operating the model train 100 it is useful to slow starting and stopping the movement of model or toy, by applying power to the motor gradually. This gradual starting and stopping can be achieved by supplying power to the motor from alternate power source, such as a battery for a time after the primary power source is disconnected from the motor 110.

With respect to claim 18 the power application to the motor activated by the control arrangement in response to transducer rotational signals is a part of Young et al. US # 5,555,815 teaching. Young et al. teach speed sensor 30 generating a vehicle speed signals. Speed sensor 30 is connected to a micro-controller 22. Young et al. apparatus may include a back up power source 21, such as a nicad battery. This source of power can be utilized when track power is removed. The battery 21 is used for a short period of time.

Melocik et al. US # 4,567,757, teach a transducer means 40 that produces wheel rotation signals in response to rotation of at least one of the vehicle wheels. These

signals are supplied to microprocessor 54 to develop brake status signal in response to calculated rotation angle being less or equal or greater than the predetermined amount.

It would be obvious to one of ordinary skill in the art at the time invention was made to combine these two teachings to cause power from the additional source such as battery, to be applied to the motor at different times upon the detection of required braking status to imitate the slower or faster movement.

Based on the above arguments, examiner maintains the rejection as follows.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 18-24 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. US # 5,555,815 and Melocik et al. US # 4,567,757.

Young et al. discloses a control system for model vehicle on a track. Wherein, the model system generates force for propelling a model train. Young et al. teach:

- A locomotive 10, which is driven along a track 12 by transformer 16 that includes a horn button 18. Wherein, the activation of the horn button 18 produces a dc voltage on top of the ac track power. That sends an electric signal along a power rail 14;

- An offset sensor 28 is electrically coupled to the power rail 14 and is sensitive to either negative or positive dc offset on the rail. The negative offset is generated when the horn button 18 is depressed. That provides for changes in the voltage available to the motor.
- A sound generating unit 20 located within the locomotive body;
- A backup power source 21, such as battery. This source of power can be utilized when track power is removed. The battery 21 is used for a short period of time in response to the rotational signals.
- A speed sensor 30 and offset sensor 28 provided to input data to a micro-controller 22;
- A sound memory ROM 26 arrangement coupled to the micro-controller 22. The processor on the basis of the detected speeds can vary sounds. ROM represents non-volatile memory, and is provided to store the information related to speed zones, based on rotational signal inputs, and simulating the rail road sounds, (see column 5, lines 23-62);
- The micro-controller 22 based on rotational speed signals and PWM signals generates a plurality of

Young et al. do not teach a control arrangement coupled to the transducer that is configured to cause power to be applied to the motor at times based on information provided by the transducer.

Melocik et al. teach, (see Fig. 1 and column 1, lines 64-68 and column 2, lines 6-34, column 3, lines 26-32, 40-44, 51-59) an apparatus, in conjunction with a vehicle.

Art Unit: 2837

Wherein, in response to receiving wheel rotational signals from the transducer, the processor determines the degree of rotation of the wheels during at least a predetermined portion of period of time that the traction motor is energized, (see abstract). The apparatus comprising:

- A source of power;
- A traction motor connected to the power source and to vehicle wheels.

Wherein, a transducer means 40 provide wheel rotation signals in response to rotation of at least one of the vehicle wheels. These signals are supplied to microprocessor 54 to develop brake status signal in response to calculated rotation angle being less or equal or greater than the predetermined amount, (see column 2, lines 6-39).

- A radio control interface in form of vehicle transceiver 60 coupled to communication interface;
- A remote computer/transceiver 62.

Hence, it would have been obvious to one having ordinary skill in the art at the time invention was made to combine teachings of Young et al. and Melocik et al. to cause power from the additional source such as battery, to be applied to the motor at different times, upon the detection of rotational angle having corresponding braking status to supply lower level of power and to slow the rotational movement gradually.

The reason is to imitate the inertia of the moving vehicle in the model or toy.

***Allowable Subject Matter***

3. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 26-32, 34 and 35 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

Prior art listed in the attached PTO-892 form considered to be pertinent to the submitted application.

However, none of the cited prior art teaches or suggests in combination:

- A control arrangement operative to detect an available track voltage and coupled to receive the rotational speed information from the transducer and arranged to apply a percentage of the available track voltage to the motor and apply a greater percentage of available track voltage to the motor in response to a signal from the transducer characteristic of decrease in the rotational speed of the motor, as in claim 26;
- A process control arrangement coupled to receive speed information to generate a plurality of motor control signals based upon combination of speed feedback control signals and Pulse Width Modulation signal.

**Conclusion**

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (703)308-5828. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703)308-3370

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Application/Control Number: 09/702,466

Page 8

Art Unit: 2837

Rita Leykin  
Examiner  
Art Unit 2837

A handwritten signature in cursive script that reads "Rita Leykin".

R.L.  
July 30, 2002